



LIEBHERR LH40M 120553-1215

Rear Right Wheel Hub

PETRO CANADA TRAXON 75W90 SYNTHETIC (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA TRAXON 75W90 SYNTHETIC, however, a fluid match indicates that this fluid is SAE 90 Gear Oil. Please confirm the oil type and grade on your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

There is no indication of any contamination in the oil.

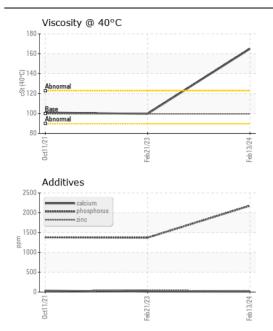
FLUID CONDITION

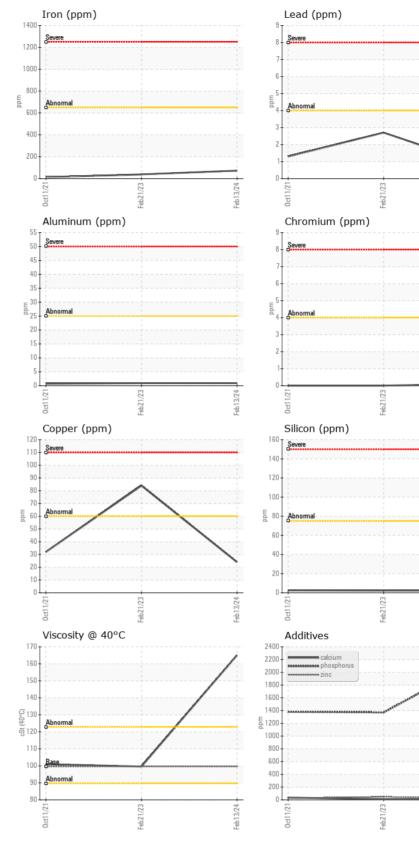
Viscosity of sample indicates oil is within SAE 90 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sample DateClient Info13 Feb 20221 Feb 20311 Oct 202Machine AgehrsClient Info408628351021Oil AgehrsClient Info000Filter AgehrsClient InfoChangedChangedChangedOil ChangedClient InfoMoneNoneNoneNoneSample StatusClient InfoNoneNoneNoneNoneIronppmASTM D5185(m)>650723813IronppmASTM D5185(m)>44c100NickelppmASTM D5185(m)>44c100NickelppmASTM D5185(m)>44000SilverppmASTM D5185(m)>44c131CopperppmASTM D5185(m)>44000VanadiumppmASTM D5185(m)>44000VanadiumppmASTM D5185(m)>44000VanadiumppmASTM D5185(m)>44000VanadiumppmASTM D5185(m)>44000VanadiumppmASTM D5185(m)>44000VanadiumppmASTM D5185(m)>722222PotassiumppmASTM D5185(m)>721222SiliconppmASTM D5185(m)>721211Sol	30 311111			/			
Sample DateClient Info13 Feb 20221 Feb 20311 Oct 202Machine AgehrsClient Info408628351021Oil AgehrsClient Info000Filter AgehrsClient InfoChangedChangedChangedOil ChangedClient InfoMoneNoneNoneNoneSample StatusClient InfoMoneNoneNoneNoneIronppmASTMD5185(m)>650723813IronppmASTMD5185(m)>44c100NickelppmASTMD5185(m)>44c100SilverppmASTMD5185(m)>44000GopperppmASTMD5185(m)>44000VanadiumppmASTMD5185(m)>6024A84432TinppmASTMD5185(m)>6024A8442VanadiumppmASTMD5185(m)>72222PotassiumppmASTMD5185(m)>72222PotassiumppmASTMD5185(m)>72222PotassiumppmASTMD5185(m)>721<11VariaduscalarVisual*NONENONENONENONESiltoonppmASTMD5185(m)>72REGNONENONESolitonppmASTMD5185(m)NONENONENONENONESoliton <td< th=""><th>Test</th><th>UOM</th><th>Method</th><th>Limit/Abn</th><th>Current</th><th>History1</th><th>History2</th></td<>	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine AgehrsClient Info408628351021Oil AgehrsClient Info000Filter AgehrsClient InfoChangedChangedChangedOil ChangedClient InfoNoneNoneNoneNoneSample StatusClient InfoNoneNoneNoneNoneIronppASTMD5185(m)>650723813ChromiumppASTMD5185(m)>44<1	Sample Number		Client Info		LH0193882	LH0193868	LH0193854
Oil AgehrsClient InfoI000Filter AgehrsClient InfoINoneChangedNoneNo	Sample Date		Client Info		13 Feb 2024	21 Feb 2023	11 Oct 2021
Filter AgehrsClient Info000Oil ChangedClient InfoChangedChangedChangedChangedChangedChangedChangedChangedNoneNoneNoneNoneSanged <th>Machine Age</th> <td>hrs</td> <td>Client Info</td> <td></td> <th>4086</th> <td>2835</td> <td>1021</td>	Machine Age	hrs	Client Info		4086	2835	1021
Oil ChangedClient InfoChangedChangedChangedChangedChangedChangedNone	Oil Age	hrs	Client Info		0	0	0
Filter Changed Sample StatusClient InfoNoneNoneNoneNoneNoneSample StatusClient InfoNORNoneABNORMALMARGINAIronppmASTM D5185(m)>44<1	Filter Age	hrs	Client Info		0	0	0
Sample Status NORMAL ABNORMAL MARGINA Iron ppm ASTM D5185(m) >650 72 38 13 Chromium ppm ASTM D5185(m) >44 <1 0 0 Nickel ppm ASTM D5185(m) >44 <1 0 <1 Titanium ppm ASTM D5185(m) >44 0 0 0 Silver ppm ASTM D5185(m) >44 0 0 0 Aluminum ppm ASTM D5185(m) >25 <1 <1 <1 Lead ppm ASTM D5185(m) >4 <1 3 1 Copper ppm ASTM D5185(m) >4 0 0 0 Visual* NONE NONE VLITE LTMO Yellow Metal scalar Visual* NONE NONE NONE Silicon ppm ASTM D5185(m) >75 2 2 2 Solicon ppm <th>Oil Changed</th> <th></th> <th>Client Info</th> <th></th> <th>Changed</th> <th>Changed</th> <th>Changed</th>	Oil Changed		Client Info		Changed	Changed	Changed
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VaterWC Method>0.2NEGNEGNEGSiltscalarVisual*NONENONENONENONEDebrisscalarVisual*NONENONENONENONESand/DirtscalarVisual*NONENONENONENONEAppearancescalarVisual*NORMLNORMLNORMLNORMLOdorscalarVisual*NORMLNORMLNORMLNORMLNORMLCdorscalarVisual*NORMLNORMLNORMLNORMLNORMLSodiumppmASTM D5185(m)32836316249BariumppmASTM D5185(m)100<1ManganeseppmASTM D5185(m)12<11CalciumppmASTM D5185(m)791137PhosphorusppmASTM D5185(m)1145217913711381ZincppmASTM D5185(m)3224728SulfurppmASTM D5185(m)1790246202232120934	Silicon	ppm	ASTM D5185(m)	>75	2	2	2
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Sand/DirtscalarVisual*NONENONENONENONENONEAppearancescalarVisual*NORMLNORMLNORMLNORMLNORMLNORMLOdorscalarVisual*NORMLNORMLNORMLNORMLNORMLNORMLEmulsified WaterscalarVisual*>0.2NEGNEGNEGSodiumppmASTM D5185(m)32836316249BariumppmASTM D5185(m)100<1MolybdenumppmASTM D5185(m)12<1MagnesiumppmASTM D5185(m)12<1CalciumppmASTM D5185(m)791137PhosphorusppmASTM D5185(m)145217913711381ZincppmASTM D5185(m)3224728SulfurppmASTM D5185(m)17909246202232120934	Silt	scalar	Visual*	NONE	NONE	NONE	NONE
AppearancescalarVisual*NORML<	Debris	scalar	Visual*	NONE	NONE	NONE	NONE
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Emulsified Water scalar Visual* >0.2 NEG NEG NEG Sodium ppm ASTM D5185(m) 32 3 2 3 Boron ppm ASTM D5185(m) 328 36 316 249 Barium ppm ASTM D5185(m) 1 0 0 <1 Molybdenum ppm ASTM D5185(m) 1 0 0 <1 Manganese ppm ASTM D5185(m) 1 2 <1 Magnesium ppm ASTM D5185(m) 1 21 1 Calcium ppm ASTM D5185(m) 7 9 11 37 Phosphorus ppm ASTM D5185(m) 7 9 1371 1381 Zinc ppm ASTM D5185(m) 3 22 47 28 Sulfur ppm ASTM D5185(m) 3 22 47 2034	Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Sodium ppm ASTM D5185(m) 3 2 3 Boron ppm ASTM D5185(m) 328 36 316 249 Barium ppm ASTM D5185(m) 1 0 0 <1 Molybdenum ppm ASTM D5185(m) 1 0 0 <1 Manganese ppm ASTM D5185(m) 1 2 <1 Magnesium ppm ASTM D5185(m) 1 2 <1 Magnesium ppm ASTM D5185(m) 1 <1 1 Calcium ppm ASTM D5185(m) 7 9 11 37 Phosphorus ppm ASTM D5185(m) 1145 2179 1371 1381 Zinc ppm ASTM D5185(m) 3 22 47 28 Sulfur ppm ASTM D5185(m) 17909 24620 22321 20934	Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Boron ppm ASTM D5185(m) 328 36 316 249 Barium ppm ASTM D5185(m) 1 0 0 <1 Molybdenum ppm ASTM D5185(m) 1 0 0 <1 Manganese ppm ASTM D5185(m) 1 1 2 <1 Magnesium ppm ASTM D5185(m) 1 <1 1 1 Calcium ppm ASTM D5185(m) 1 <1 1 37 Phosphorus ppm ASTM D5185(m) 1145 2179 1371 1381 Zinc ppm ASTM D5185(m) 3 22 47 28 Sulfur ppm ASTM D5185(m) 17909 24620 22321 20934	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Barium ppm ASTM D5185(m) 1 0 0 <1	Sodium	ppm	ASTM D5185(m)		3	2	3
Molybdenum ppm ASTM D5185(m) 0 0 <1	Boron	ppm	ASTM D5185(m)	328	36	316	249
Manganese ppm ASTM D5185(m) 1 2 <1	Barium	ppm	ASTM D5185(m)	1	0	0	<1
Magnesium ppm ASTM D5185(m) 1 <1	Molybdenum	ppm	ASTM D5185(m)		0	0	<1
Calcium ppm ASTM D5185(m) 7 9 11 37 Phosphorus ppm ASTM D5185(m) 1145 2179 1371 1381 Zinc ppm ASTM D5185(m) 3 22 47 28 Sulfur ppm ASTM D5185(m) 17909 24620 22321 20934	Manganese	ppm	ASTM D5185(m)		1	2	<1
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Zinc ppm ASTM D5185(m) 3 22 47 28 Sulfur ppm ASTM D5185(m) 17909 24620 22321 20934	Calcium	ppm	ASTM D5185(m)	7	9	11	37
Sulfur ppm ASTM D5185(m) 17909 24620 22321 20934	Phosphorus	ppm	ASTM D5185(m)	1145	2179	1371	1381
	Zinc	ppm	ASTM D5185(m)	3	22	47	28
	Sulfur	ppm	ASTM D5185(m)	17909	24620	22321	20934
	Visc @ 40°C		ASTM D7279(m)	99.6	165	99.6	101

Report Id: GOOCHI [WCAMIS] 02616386 (Generated: 02/20/2024 11:58:36) Rev: 1

Submitted By: ?





Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. Received : LH0193882 : 16 Feb 2024 Lab Number : 02616386 Tested : 20 Feb 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5733496 : 20 Feb 2024 - Kevin Marson Diagnosed Test Package : MOBCE (Additional Tests: Visual) To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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